



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,606	10/30/2003	Bruce William Forsberg		6870
7590 CURTIS W DODD 2803 BENTLEY STREET HUNTSVILLE, AL 35801		03/16/2007	EXAMINER	
			SNIDER, THERESA T	
			ART UNIT	PAPER NUMBER
			1744	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/696,606	FORSBERG ET AL.
	Examiner	Art Unit
	Theresa T. Snider	1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 and 19-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 October 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 11(fig. 2).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "5" and "1" have both been used to designate vacuum head. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12" has been used to designate both power drive and vacuum unit. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fine mist spray attachment(claim 12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

Exemplary of such:

Page 4, it is believed 'exasterbates' should be replaced with 'exacerbates'.

Page 4, the descriptions of figures 1 and 2 should end in a period.

Page 5, lines 3-4, 'in which piece number 1 is the vacuum head' would be more appropriately replaced with 'is vacuum head 1';

Lines 4-6, 'Piece number...piece number 4.' would be more appropriately replaced with 'Bearing 2 attaches to a rotary brush 3 on an inside bearing surface and an outer bearing surface attaches to the bearing mounting assembly 4.';

Lines 7-9, 'assembly, piece number 4' would be more appropriately replaced with 'assembly 4';

Line 7, 'brush' would be more appropriately replaced with 'brush 3';

Line 7, it is unclear as to what is meant by 'bearings'; there appears to only have been one bearing previously mentioned;

Line 8, 'head' would be more appropriately replaced with 'head 1';

Line 9, 'head piece number 5' would be more appropriately replaced with 'head 5'. Is this the same head as in line 4?

Line 10, 'guard, piece number 6' would be more appropriately replaced with 'guard 6';

Line 11, 'suctions' should be replaced with 'suction';

Line 11, 'the vacuum' should be replaced with 'a vacuum';

Lines 11-12, 'belt, piece number 8' would be more appropriately replaced with 'belt 8';

Line 12, 'throat, piece number 9' would be more appropriately replaced with 'throat 9';

Line 12, 'gear, piece number 10' would be more appropriately replaced with 'gear 10';

Line 13, 'the brush' should be replaced with 'a brush';

Line 13, 'Piece number 12 is a power drive' would be more appropriately replaced with 'Power drive 12 is';

Lines 12-13, it is unclear as to what is meant by the drive being 'for agitation'; does it actually agitate or does it drive something that cause agitation?;

Line 14, 'piece number 12 is a vacuum unit with filter' would be more appropriately replaced with 'vacuum unit with filter 12';

Line 14, it is unclear as to whether the vacuum unit is in addition to the suction device of the vacuum unit of line 11 or one in the same;

Line 18, 'devise' should be replaced with 'device'.

Appropriate correction is required.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: it is unclear as to where in the specification is disclosed the apparatus is part of a typical house sized vacuum unit(claim 4) or an additional tool for power agitated hand cleaning(claim 6) or the drive belt positioned between the bearings or to the outside of both bearings in a cantilevered fashion(claim 7) or the bearing assembly and mounting fixture is easily removable from the vacuum head or the brushes and bearing assembly made with multiple pieces or injection molded as a single unit(claim 9) or the unit being fabricated of metals, plastic or other(claim 10) or the instrument having brushes extend to the outer edge of the cylindrical brush(claim 11) or a fine mist spray attachment(claim 12).

Claim Objections

7. Claims 1-12 are objected to because of the following informalities: claim 1, line 2, 'edged' should be replaced with 'edges' and line 4, 'the outside' should be replaced with 'an outside'. Claim 11, line 1 and claim 19, lines 5 and 6, should 'brushes' be 'bristles'? Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-12 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The title and the disclosure leads one to believe that the invention is a device to better clean edges HOWEVER it is unclear as to how this is accomplished using the invention. The disclosure sets for a brush and a bearing assembly however fails to disclose how the combination of the two allow for edge cleaning. As disclosed, one would expect the apparatus to simply provide for agitation of a 'normal' surface not necessarily the edge formed between a surface and a wall.

10. Claims 1-12 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 appears to be invoking 112, 6th paragraph means-plus-function language HOWEVER it is not clear which structure in the specification pertains to each of the 'means' in the claim. With respect to claim 19, it is unclear as to where in the specification it is disclosed that there are two bearings at one end of a frame, two bearings on one end of a brush, radially extending brushes and outward brushes extending through the opening.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 1, line 3, 'vacuum' should be replaced with 'the vacuum';

Line 4, 'the' should be replaced with 'an';

Line 4, it is unclear as to whether 'a vacuum housing' is in addition to the 'vacuum head housing' of line 2 or one in the same.

Claim 2, line 1, 'the bearings' and 'the outside edge' lack proper antecedent basis;

Line 2, 'the rotary brush' lacks proper antecedent basis.

Claim 3, line 2, 'the inset bearings' and 'the head' lack proper antecedent basis.

Claims 4-6, 'the instrument' lacks proper antecedent basis.

Claim 5, it is unclear as to what is meant by a 'stand-alone' tool for 'hand cleaning'.

Claim 7 'the drive belt' and 'the bearings' lack proper antecedent basis.

Claim 8, 'the bearing assembly', 'the mounting fixture' and 'the vacuum head' lack proper antecedent basis.

Claim 9, 'the brushes' and 'the bearing assembly' lack proper antecedent basis.

Claim 10, line 1, 'the unit' lacks proper antecedent basis.

Claim 11, 'the instrument' and 'the cylindrical brush' lack proper antecedent basis.

Claim 12, it is unclear as to which element of claim 1 the attachment is added to;

‘the carpet’ lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Damman et al.(7,146,682).

Damman et al. discloses a means of cleaning to the edge of a housing with a rotary brushing means and a means to increase agitation and maintain airflow at the outside edge of the housing (figs. 1 and 8B, #620,100c).

With respect to claim 6, Damman et al. discloses the instrument being an additional tool for a typical vacuum cleaner (col. 6, lines 21-23).

With respect to claim 11, Damman et al. discloses the instrument can have brushes that extend to the outer edge of a cylindrical brush (fig. 1, #620).

15. Claims 1-5, 7-9 and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kaulig et al.(3,959,847).

Kaulig et al. discloses a means of cleaning to the edge of a housing with a rotary brushing means and a means to increase agitation and maintain airflow at the outside edge of the housing (fig. 2, #1,7a).

With respect to claim 2, Kaulig et al. discloses bearings inset from an outer edge of a rotary brush (fig. 1, #30).

With respect to claim 3, Kaulig et al. discloses the vacuum head housing adapted to receive inset bearings (fig. 1, #30).

With respect to claim 4, Kaulig et al. discloses the instrument is part of a typical/stand-alone vacuum cleaner wherein the agitator is powered and is pushed by an operator's hand (col. 2, lines 66-68).

With respect to claim 7, Kaulig et al. discloses a drive belt positioned between two bearings (fig. 2, #30,28).

With respect to claim 8, Kaulig et al. discloses the bearing assembly and a mounting fixture removable from a vacuum head (col. 4, lines 31-46).

With respect to claim 9, Kaulig et al. discloses the brush and bearings made of multiple pieces (fig. 2, #30,1).

With respect to claim 11, Kaulig et al. discloses the instrument has brushes that extend to the outer edge of a cylindrical brush (fig. 2, #7a).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaulig et al.('3,959,847) as applied to claim 1 above, and further in view of Stegens(5,465,451).

Kaulig et al. discloses a similar apparatus however fails to disclose the material of construction.

Stegens discloses an agitator fabricated from plastic (col. 3, lines 38-40). It would have been obvious to one of ordinary skill in the art to fabricate the apparatus of Kaulig et al.

of plastic, as disclosed in Stegens, to provide for a design that is lightweight and relatively inexpensive to fabricate.

20. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaulig et al.('3,959,847) as applied to claim 1 above, and further in view of Montgomery(6,941,614).

Kaulig et al. discloses a similar apparatus however fails to disclose a water spray attachment.

Montgomery discloses a water spray attachment for a vacuum head having a rotary agitator (abstract). It would have been obvious to one of ordinary skill in the art to provide the attachment of Montgomery in Kaulig et al. to provide for improved carpet grooming.

21. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaulig et al.(3,959,847).

Kaulig et al. discloses a frame having a first end and a second end with an opening (fig. 1, #25, fig. 1, opening being where #35 extends from the frame).

Kaulig et al. discloses a rotary brush having bearings and radially extending brushes and outward brushes extending through an opening (fig. 2, #1,30,7,7a). It would have been obvious to one of ordinary skill in the art to determine the most appropriate number of bearings in Kaulig et al to allow for the most effective rotation.

Kaulig et al. discloses a drive belt coupled to the brush (fig. 1, #28).

22. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaulig et al.(3,959,847) as applied to claim 19 above, and further in view of Walch et al.(5,448,794).

Kaulig et al. discloses a similar apparatus however fails to disclose a vacuum unit in the frame.

Walch et al. discloses a frame having a rotary brush and drive belt with a vacuum unit coupled to the frame (fig. 7, #34,38,74). It would have been obvious to one of ordinary skill in the art to provide the vacuum unit of Walch et al. in Kaulig et al. to allow for use without a hose connection to a vacuum unit for greater flexibility in areas of use.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The first 12 references cited on the 892 were cited by Applicant in the disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Friday (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Theresa T. Snider
Primary Examiner
Art Unit 1744

3/12/07

